

CLAIMS

What is claimed is:

- 1 1. A method of displaying a standard definition television signal on a high definition
2 matrix display, comprising the steps of:
3 receiving the standard definition television signal to provide a received
4 signal;
5 sampling the received signal to provide a sampled digital video signal;
6 deinterlacing the sampled digital video signal to provide a progressive
7 line signal;
8 doubling the progressive line signal to provide a predetermined
9 number of active lines of video in a frame; and
10 displaying the predetermined number of active lines of video on the
11 high definition matrix display in a shortened vertical interval.
- 1 2. The method of claim 1, where the method further comprises the step of storing
2 the progressive line signal into a memory before the step of doubling.
- 1 3. The method of claim 1, wherein the step of doubling comprises the step of
2 reading each line of the progressive line signal twice from the memory to produce a
3 standard 960p signal, wherein the progressive line signal is a 480p signal.
- 1 4. The method of claim 2, wherein the method further comprises the step of reading
2 each line of the progressive line signal twice from the memory at a speed fast
3 enough to produce the doubling of each line of the progressive line signal in the
4 frame and to transmit the frame to the display in a shorter interval than was used to
5 write the progressive line signal to the memory.
- 1 5. The method of claim 4, wherein the shorter interval compensates for the
2 transmission of black lines transmitted at the top and bottom of the display.

7. The method of claim 6, wherein the signal corresponding to the predetermined number of active lines is a 960p frame which is read out of the memory and transmitted to the display in approximately 88% of a vertical period.

9. The method of claim 8, wherein the shortened vertical interval is approximately 88% of a vertical interval.

10. The method of claim 8, wherein the step of doubling comprises the step of repeating each line of the progressive line signal to produce a standard 960p signal, wherein the progressive line signal is a 480p signal.

Figure 1. The structure of the proposed model.

- 1 11. The method of claim 8, wherein step of storing the frame, comprises the step of
2 storing a 960p signal into the memory.
- 1 12. The method of claim 8, wherein the shorter interval compensates for the
2 transmission of black lines transmitted at the top and bottom of the display.
- 1 13. The method of claim 8, wherein the signal corresponding to the predetermined
2 number of active lines is a 960p frame which is read out of the memory and
3 transmitted to the display in approximately 88% of a vertical interval.

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